IN THE CLAIMS AMEND:

1. (Currently Amended) A system for locating a circuit interrupter associated with a selected branch circuit from amongst a plurality of circuit interrupting devices, each circuit interrupter within said plurality of circuit interrupting devices being operably connected in series between a power line bus bar and a respective branch circuit, each branch circuit having a hot lead and a neutral lead, said system comprising:

- a receiver broadly tuned about a predetermined frequency of a current spike signal created on said selected branch circuit by a ~~passive~~ transmitter, said receiver driving a user-perceivable signaling device upon sensing said current spike signal; and
- said ~~passive~~ transmitter creating said current spike signal on said selected branch circuit at said predetermined frequency upon operable connection to said selected branch circuit, said current spike signal having a sufficiently short spike duration and a sufficient amplitude so as to substantially minimize development of a sympathetic signal on other branch circuits adjacent to said selected branch circuit, said ~~passive~~ transmitter including a plurality of subcircuits, each of the plurality of subcircuits having a voltage controlled switch in series with a charge storage device;
- whereby upon operable connection to said selected branch circuit, in at least one of the plurality of subcircuits, said voltage controlled switch is triggered into conductance by application of a voltage in excess of a breakover voltage across said voltage controlled switch, allowing current to flow through said charge storage device; causing said charge storage device to charge and instantaneously developing a current spike signal for transmission on said selected branch circuit; and
- whereby said receiver detects said current spike signal solely when in proximity to said circuit interrupter associated with said selected branch circuit as said current spike signal on said selected branch circuit is easily distinguished from said sympathetic signal developed on any of said other branch circuits.

2. (Currently Amended) The system of Claim 1, wherein the voltage controlled switch is constructed to conduct upon application of a voltage in excess of a breakover voltage across said voltage controlled switch; whereby upon said voltage controlled switch conducting, current flows through said charge storage device, causing said charge storage device to charge and instantaneously developing a current spike signal ~~on selected branch circuit~~.

3. (Currently Amended) The system of Claim ~~2~~ 1, wherein the voltage controlled switch is a SIDAC.

4. (Currently Amended) The system of Claim ~~2~~ 1, wherein the charge storage device is a capacitor.

5. (Currently Amended) The system of Claim 1, wherein the ~~passive~~ transmitter further includes a diode in series with said charge storage device in at least one of said subcircuits; whereby said ~~passive~~ transmitter creates a current spike during only one half cycle of an alternating current flowing through said hot lead of said selected branch circuit.

6. (Currently Amended) The system of Claim 1, wherein the ~~passive~~ transmitter further includes means for creating a current spike during only one half cycle of an alternating current flowing through said hot lead of said selected branch circuit.

7. (Currently Amended) The system of Claim 1, wherein the ~~passive~~ transmitter further includes a discharge circuit in parallel with said charge storage device, in at least one of said subcircuits, whereby said voltage controlled switch blocks current flow once a voltage across said voltage controlled switch falls below a minimum holding voltage, causing said charge storage device to discharge an energy stored in said charge storage device through said discharge circuit.

8. (Currently Amended) The system of Claim 7, wherein said discharge circuit includes a resistor.

9. (Currently Amended) The system of Claim 7, wherein the discharge circuit has an impedance such that the discharge circuit and the charge storage device form an RC circuit having a time constant, said time constant determined in relation to a desired number of said current spikes created in relation to cycles of ~~the~~ an alternating current flowing through said hot lead of said selected branch circuit.

10. (Currently Amended) The system of Claim 7, wherein said discharge circuit includes a signal device whereby said signal device produces a cue in response to an energy discharge from said charge storage device.

11. (Currently Amended) The system of Claim 10, wherein said signal device is a light emitting diode.

12. (Currently Amended) The system of Claim 1, wherein the ~~passive~~ transmitter further includes means for producing a user-perceivable signal in response to a current spike being created by an associated charge storage device.

13. (Canceled).

14. (Currently Amended) The system of Claim 1, ~~13~~ wherein a firing subcircuit from the plurality of subcircuits is determined by a wiring scenario of an electrical receptacle to which said ~~passive~~ transmitter is connected; wherein said firing subcircuit ~~circuit~~ creates said current spike on said selected branch circuit.

15. (Currently Amended) The system of Claim 1, wherein said ~~passive~~ transmitter further includes a plurality of indicator means for providing an indication that an electrical receptacle to which the ~~passive~~ transmitter is connected is wired in accordance with a predetermined arrangement.

16. (Original) The system of claim 15, wherein the plurality of indicator means comprises a plurality of light emitting diodes.

17. (Original) The system of claim 16, wherein the plurality of light emitting diodes is illuminated in combination to indicate a wiring condition selected from the set of wiring conditions consisting of:

correct wiring;
open ground;
open neutral;
reversed polarity;
hot on neutral with open neutral; and
unenergized circuit.

18. (Currently amended) The system according to Claim 1, wherein said receiver includes:

a microcontroller;

~~an HF~~ a high frequency pulse detector circuit broadly tuned about ~~to~~ said predetermined frequency of said current spike signal generated by said ~~passive~~ transmitter on said selected branch circuit; said ~~HF~~ high frequency pulse detector circuit operably connected to said microcontroller;

a user perceivable signaling device operably connected to said microcontroller; and

a power supply operably connected to said microcontroller;

whereby said user perceivable signaling device is driven in response to said ~~HF~~ high frequency pulse detector circuit sensing said current spike signal.

19. (Currently Amended) The system according to Claim 18, further including a field detector circuit for detecting a predetermined alternating current signal, said field detector circuit operably connected to said microcontroller;

20. (Currently Amended) The system of Claim 19, wherein said field detector circuit detects a 60Hz signal.

21. (Currently Amended) The system of Claim 19, wherein said field detector circuit detects a 50Hz signal.

22. (Currently Amended) The system according to Claim 18, wherein said signaling device includes a visual signaling device and an audible signaling device, each of said visual signaling device and audible signaling device being operably connected to said microcontroller.

23. (Currently Amended) The system according to Claim 1, wherein said current spike signal has a spike duration no longer than about 10 microseconds.

24. (Currently Amended) A ~~passive~~ transmitter for use in a system for locating a circuit interrupter associated with a selected branch circuit from amongst a plurality of circuit interrupting devices, each circuit interrupter within said plurality of circuit interrupting devices being operably connected in series with a power line bus bar and a respective branch circuit, each branch circuit having a hot lead and a neutral lead, said ~~passive~~ transmitter

creating a current spike on said selected branch circuit, said ~~passive~~ transmitter including a plurality of subcircuits, each of the plurality of subcircuits comprising:

- a voltage controlled switch constructed to conduct upon application of a voltage in excess of a breakover voltage across said voltage controlled switch; and

- a charge storage device in series with said voltage controlled switch;

whereby upon operable connection to said selected branch circuit, in at least one of the plurality of subcircuits, said voltage controlled switch is triggered into conductance by application of a voltage in excess of a breakover voltage across said voltage controlled switch, allowing current to flow through said charge storage device; causing said charge storage device to charge and instantaneously developing a current spike signal for transmission on the selected branch circuit, said current spike having a predetermined frequency and a sufficiently short spike duration so as to substantially minimize development of a sympathetic signal on other branch circuits adjacent to said selected branch circuit.

25. (Currently Amended) The ~~passive~~ transmitter of Claim 24, wherein the voltage controlled switch is a SIDAC.

26. (Currently Amended) The ~~passive~~ transmitter of Claim 24, wherein the charge storage device is a capacitor.

27. (Currently Amended) The ~~passive~~ transmitter of Claim 24, further including a discharge circuit in parallel with said charge storage device, in at least one of said subcircuits, whereby said voltage controlled switch blocks current flow once a voltage across said voltage controlled switch falls below a minimum holding voltage, causing said charge storage device to discharge an energy stored in said charge storage device through said discharge circuit.

28. (Currently Amended) The ~~passive~~ transmitter of Claim 27, wherein the discharge circuit includes a resistor.

29. (Currently Amended) The ~~passive~~ transmitter of Claim ~~28~~ 27, wherein the discharge circuit has an impedance ~~impedence~~ such that the discharge circuit and the charge storage device form an RC circuit having a time constant, said time constant determined in relation to a desired number of said current spikes created in relation to cycles of ~~the~~ an alternating current flowing through said hot lead of said selected branch circuit.

30. (Currently Amended) The ~~passive~~ transmitter of Claim 24, further including a diode in series with said charge storage device; whereby said ~~passive~~ transmitter creates a current spike during only one half cycle of ~~the~~ an alternating current flowing through said hot lead of said selected branch circuit.

31. (Currently Amended) The ~~passive~~ transmitter of Claim 24, further including means for creating a current spike during only one half cycle of ~~the AC wave~~ an alternating current flowing through said hot lead of said selected branch circuit.

32. (Currently Amended) The ~~passive~~ transmitter of Claim 27, wherein the discharge circuit includes a signal device in parallel with said charge storage device whereby said signal device produces a cue in response to an energy discharge from said charge storage device.

33. (Currently Amended) The ~~passive~~ transmitter of Claim 32, wherein said signal device is a light emitting diode.

34. (Currently Amended) The ~~passive~~ transmitter of Claim 24, further including means for producing a user-perceivable signal in response to a current spike being created by an associated charge storage device.

35. (Canceled).

36. (Currently Amended) The system of Claim ~~35~~ 24, wherein a firing subcircuit from the plurality of subcircuits is determined by a wiring scenario of an electrical receptacle to which said ~~passive~~ transmitter is connected; wherein said firing subcircuit ~~circuit~~ creates said current spike on said selected branch circuit.

37. (Currently Amended) The ~~passive~~ transmitter of Claim 24, further including a plurality of indicator means for providing an indication that an electrical receptacle to which the transmitter is connected is wired in accordance with a predetermined arrangement.

38. (Currently Amended) The ~~passive~~ transmitter of claim 37, wherein the plurality of indicator means comprises a plurality of light emitting diodes.

39. (Currently Amended) The ~~passive~~ transmitter of claim 38, wherein the plurality of light emitting diodes is illuminated in combination to indicate a wiring condition selected from the set of wiring conditions consisting of:

correct wiring;

open ground;

open neutral;

reversed polarity;

hot on neutral with open neutral; and

unenergized circuit.

40. (Currently amended) A method for locating a circuit interrupter associated with a selected branch circuit from amongst a plurality of circuit interrupting devices, each circuit interrupter within said plurality of circuit interrupting devices being operably connected in series between a power line bus bar and a respective branch circuit, each branch circuit having a hot lead and a neutral lead, said method comprising:

(a) operably connecting a ~~passive~~ transmitter to a selected branch circuit, said ~~passive~~ transmitter having a plurality of subcircuits, each of the plurality of subcircuits comprising a voltage controlled switch in series with a charge storage device;

(b) creating a current spike on the selected branch circuit at a predetermined frequency, whereby upon operable connection of the ~~passive~~ transmitter to the selected branch circuit, in at least one of the plurality of subcircuits, the voltage controlled switch is triggered into conductance by application of a voltage in excess of a breakover voltage across said voltage controlled switch, allowing current to flow through said charge storage device, causing said charge storage device to charge and instantaneously developing a current spike signal for transmission on said selected branch circuit;

(c) inducing only a substantially weak electromagnetic field about the selected branch circuit by limiting the current spike signal to a sufficiently short duration;

(d) placing a receiver broadly tuned about the predetermined frequency of the current spike signal in physical proximity to each of the plurality of circuit interrupting devices individually; and

(e) driving a user-perceivable signaling device when the receiver is coupled to the weak electromagnetic field generated at the predetermined frequency of the current spike signal.

41. (Currently Amended) The method of Claim 40, further including indicating that an electrical receptacle to which the transmitter is connected is wired in accordance with a predetermined arrangement.

42. (New) A system for locating a circuit interrupter associated with a selected branch circuit from amongst a plurality of circuit interrupting devices, each circuit interrupter within said plurality of circuit interrupting devices being operably connected in series between a power line bus bar and a respective branch circuit, each branch circuit having a hot lead and a neutral lead, said system comprising:

- a receiver broadly tuned about a predetermined frequency of a current spike signal created on said selected branch circuit by a ~~passive~~ transmitter, said receiver driving a user-perceivable signaling device upon sensing said current spike signal; and

- said ~~passive~~ transmitter creating said current spike signal on said selected branch circuit at said predetermined frequency upon operable connection to said selected branch circuit, said current spike signal having a sufficiently short spike duration and a sufficient amplitude so as to substantially minimize development of a sympathetic signal on other branch circuits adjacent to said selected branch circuit, said ~~passive~~ transmitter including a voltage controlled switch in series with a charge storage device;

- whereby upon operable connection to said selected branch circuit, said voltage controlled switch is triggered into conductance by application of a voltage in excess of a breakover voltage across said voltage controlled switch, allowing current to flow through said charge storage device; causing said charge storage device to charge and instantaneously developing a current spike signal on said selected branch circuit;

- whereby said receiver detects said current spike signal solely when in proximity to said circuit interrupter associated with said selected branch circuit as said current spike signal on said selected branch circuit is easily distinguished from said sympathetic signal developed on any of said other branch circuits; and

- wherein said ~~passive~~ transmitter further includes a plurality of indicator means for providing an indication that an electrical receptacle to which the ~~passive~~ transmitter is connected is wired in accordance with a predetermined arrangement.

43. (New) A system for locating a circuit interrupter associated with a selected branch circuit from amongst a plurality of circuit interrupting devices, each circuit interrupter

within said plurality of circuit interrupting devices being operably connected in series between a power line bus bar and a respective branch circuit, each branch circuit having a hot lead and a neutral lead, said system comprising:

- a receiver broadly tuned about a predetermined frequency of a current spike signal created on said selected branch circuit by a ~~passive~~ transmitter, said receiver driving a user-perceivable signaling device upon sensing said current spike signal; and

- said ~~passive~~ transmitter creating said current spike signal on said selected branch circuit at said predetermined frequency upon operable connection to said selected branch circuit, said current spike signal having a sufficiently short spike duration and a sufficient amplitude so as to substantially minimize development of a sympathetic signal on other branch circuits adjacent to said selected branch circuit, said ~~passive~~ transmitter including a voltage controlled switch in series with a charge storage device;

- whereby upon operable connection to said selected branch circuit, said voltage controlled switch is triggered into conductance by application of a voltage in excess of a breakover voltage across said voltage controlled switch, allowing current to flow through said charge storage device; causing said charge storage device to charge and instantaneously developing a current spike signal on said selected branch circuit;

- whereby said receiver detects said current spike signal solely when in proximity to said circuit interrupter associated with said selected branch circuit as said current spike signal on said selected branch circuit is easily distinguished from said sympathetic signal developed on any of said other branch circuits; and

- wherein said receiver includes:

a microcontroller;

~~an HF~~ a high frequency pulse detector circuit broadly tuned about ~~to~~ said predetermined frequency of said current spike signal generated by said ~~passive~~ transmitter on said selected branch circuit; said ~~HF~~ high frequency pulse detector circuit operably connected to said microcontroller;

a user perceivable signaling device operably connected to said microcontroller; and

a power supply operably connected to said microcontroller;

whereby said user perceivable signaling device is driven in response to said ~~HF~~ high frequency pulse detector circuit sensing said current spike signal.

44. (New) A ~~passive~~ transmitter for use in a system for locating a circuit interrupter associated with a selected branch circuit from amongst a plurality of circuit interrupting devices, each circuit interrupter within said plurality of circuit interrupting devices being operably connected in series with a power line bus bar and a respective branch circuit, each branch circuit having a hot lead and a neutral lead, said ~~passive~~ transmitter creating a current spike on said selected branch circuit, said ~~passive~~ transmitter comprising:

- a voltage controlled switch constructed to conduct upon application of a voltage in excess of a breakover voltage across said voltage controlled switch;

- a charge storage device in series with said voltage controlled switch;

whereby upon operable connection to said selected branch circuit, said voltage controlled switch is triggered into conductance by application of a voltage in excess of a breakover voltage across said voltage controlled switch, allowing current to flow through said charge storage device; causing said charge storage device to charge and instantaneously developing a current spike signal on selected branch circuit, said current spike having a predetermined frequency and a sufficiently short spike duration so as to substantially minimize development of a sympathetic signal on other branch circuits adjacent to said selected branch circuit; and

- a plurality of indicator means for providing an indication that an electrical receptacle to which the transmitter is connected is wired in accordance with a predetermined arrangement.

45. (New) The system of Claim 1, wherein the transmitter comprises a first lead and at least one of a second lead and a third lead; and wherein the transmitter creates said current spike when one of the first, second and third leads is connected to the hot lead of the branch circuit and another of the first, second and third leads is connected to one of the neutral lead and a safety ground lead of the branch circuit.

46. (New) The transmitter of Claim 24, wherein the transmitter comprises a first lead and at least one of a second lead and a third lead; and wherein the transmitter creates said current spike when one of the first, second and third leads is connected to the hot lead of the branch circuit and another of the first, second and third leads is connected to one of the neutral lead and a safety ground lead of the branch circuit.

47. (New) The method of Claim 40, wherein the transmitter comprises a first lead

and at least one of a second lead and a third lead; and wherein the transmitter creates said current spike when one of the first, second and third leads is connected to the hot lead of the branch circuit and another of the first, second and third leads is connected to one of the neutral lead and a safety ground lead of the branch circuit.

48. (New) The system of Claim 42, wherein the transmitter comprises a first lead and at least one of a second lead and a third lead; and wherein the transmitter creates said current spike when one of the first, second and third leads is connected to the hot lead of the branch circuit and another of the first, second and third leads is connected to one of the neutral lead and a safety ground lead of the branch circuit.

49. (New) The system of Claim 43, wherein the transmitter comprises a first lead and at least one of a second lead and a third lead; and wherein the transmitter creates said current spike when one of the first, second and third leads is connected to the hot lead of the branch circuit and another of the first, second and third leads is connected to one of the neutral lead and a safety ground lead of the branch circuit.

50. (New) The transmitter of Claim 44, wherein the transmitter comprises a first lead and at least one of a second lead and a third lead; and wherein the transmitter creates said current spike when one of the first, second and third leads is connected to the hot lead of the branch circuit and another of the first, second and third leads is connected to one of the neutral lead and a safety ground lead of the branch circuit.